

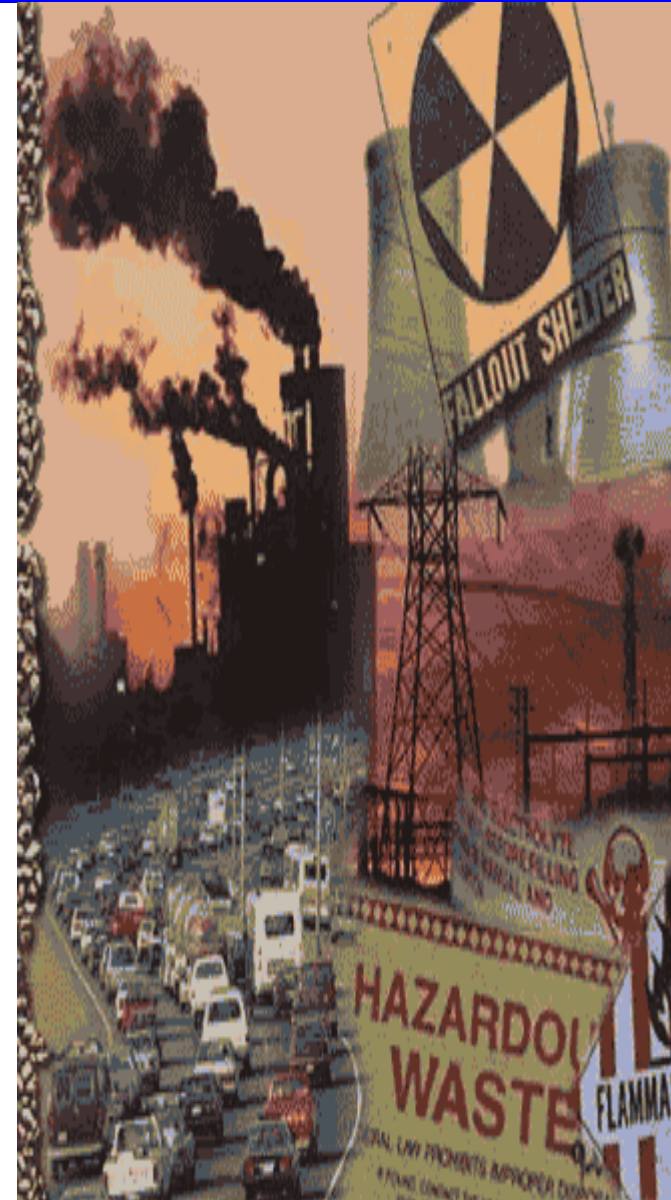
# Health Impact Assessment: Tools for Advancing Health, Sustainability, and Social Justice



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# Why Should a Society Want a Public Health Perspective on Policy and Planning?

- Helps to prevent harm
- Provides a comprehensive lens on issues and trade-offs in public decision-making
- Supports community engagement and legitimizes “unheard” community voices
- Increases policy maker and public understanding of health and policy relationships
- Mobilizes political support (or opposition) for policy



# Existing Institutions *Promise* the Promotion and Protection of Health!



- City Planning Codes are adopted “...to promote and protect the public health, safety, peace, morals, comfort, convenience and general welfare..”
- NEPA requires analysis health and safety problems caused physical changes
- Environmental Justice requires agencies to identify and address adverse health effects of programs, policies, and activities on low income and minority populations

# Existing Institutions *Promise* the Promotion and Protection of Health!

The purpose of public health is to fulfill society's interest in assuring the conditions in which people can be healthy"

—Institute of Medicine

# **Health Impact Assessment**

## **A Definition**

**“...a combination of procedures or methods by which a policy, program, or project may be judged as to the effects it may have on the health of a population.”**

**- *WHO Regional Office for Europe (1999)***

# The Health Impact Assessment Process

<b>Screening</b>	Understand the policy/plan and its alternatives, judge the breadth and magnitude of health effects, examine the strength of the evidence, gather available analysis, understand stakeholder positions, consider equity effects, and consider the potential for improvements
<b>Scoping:</b>	Identify health pathways, research questions, research methods, data sources, and mitigation strategies
<b>Appraisal:</b>	Review documents, conduct field visits and gather field measures/data, gather secondary data, conduct map analyses, and apply quantitative forecasting
<b>Reporting</b>	Write structured report with findings, submit comment letters (e.g., EIR), hold stakeholder meetings to share findings, and, provide public testimony
<b>Monitoring</b>	Assess response to comments and reports, review media coverage, stakeholder and decision-maker statements, and, assess changes in plan/project/policy decisions deriving from HIA analysis

# **Public Health's Vision: A Healthy Environment for All**

The fundamental conditions and resources for health are peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice and equity.

Ottawa Charter for Health Promotion  
(1986)

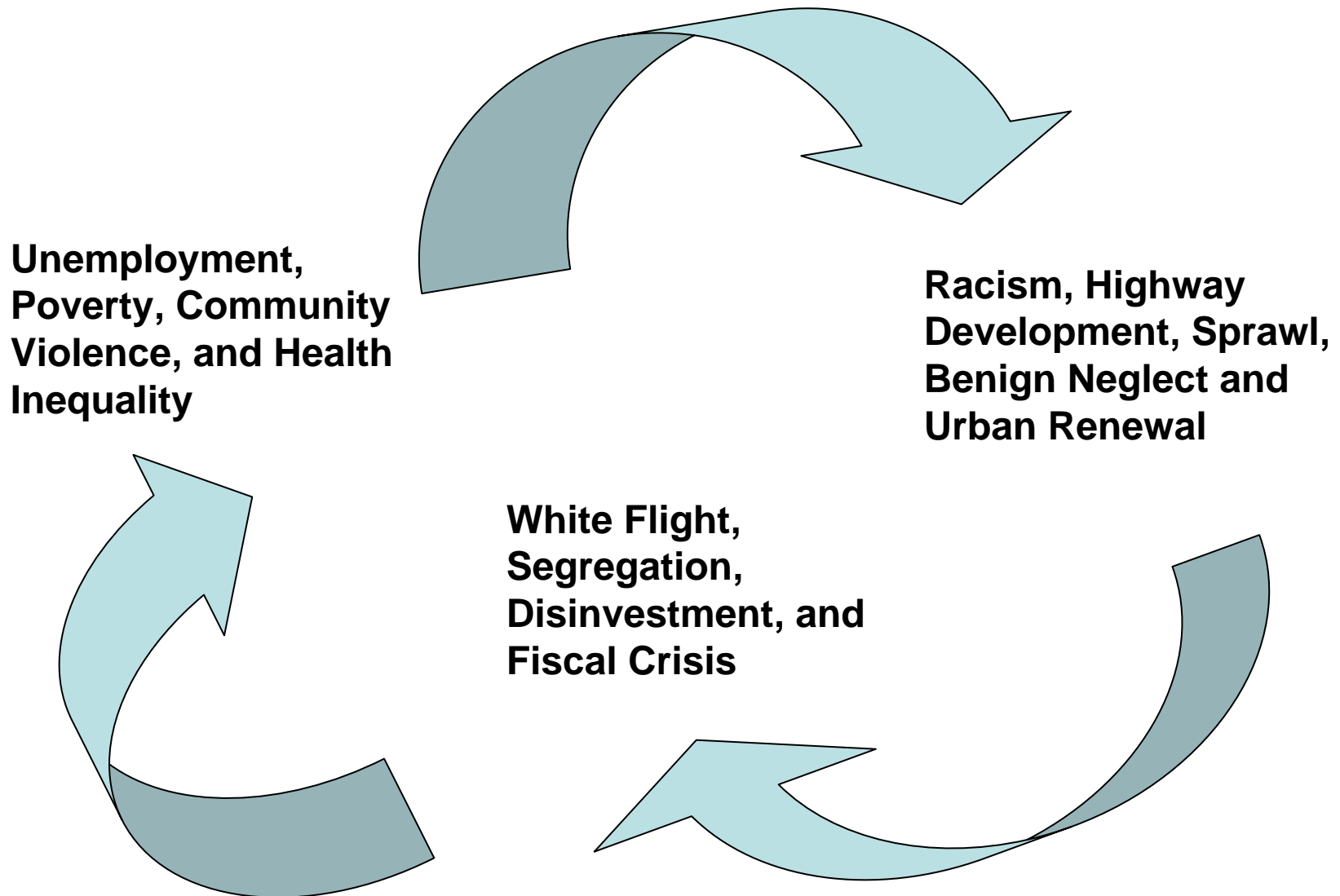
# Public Health Values: Equality for Health Opportunities

Physicians are natural advocates  
for the poor

-Rudolf Virchow (1821-1902)



# Public Health Evidence: Policies and the Geography of Health Inequities



# Land Use and Transportation Systems Planning: Questions for Health, the Environment, and Social Justice

- Will development improve environmental quality?
- Will development ensure infrastructure, investment, and opportunities for all?
- Will development harm low-income and ethnic minorities?
- Will development secure social inclusion?

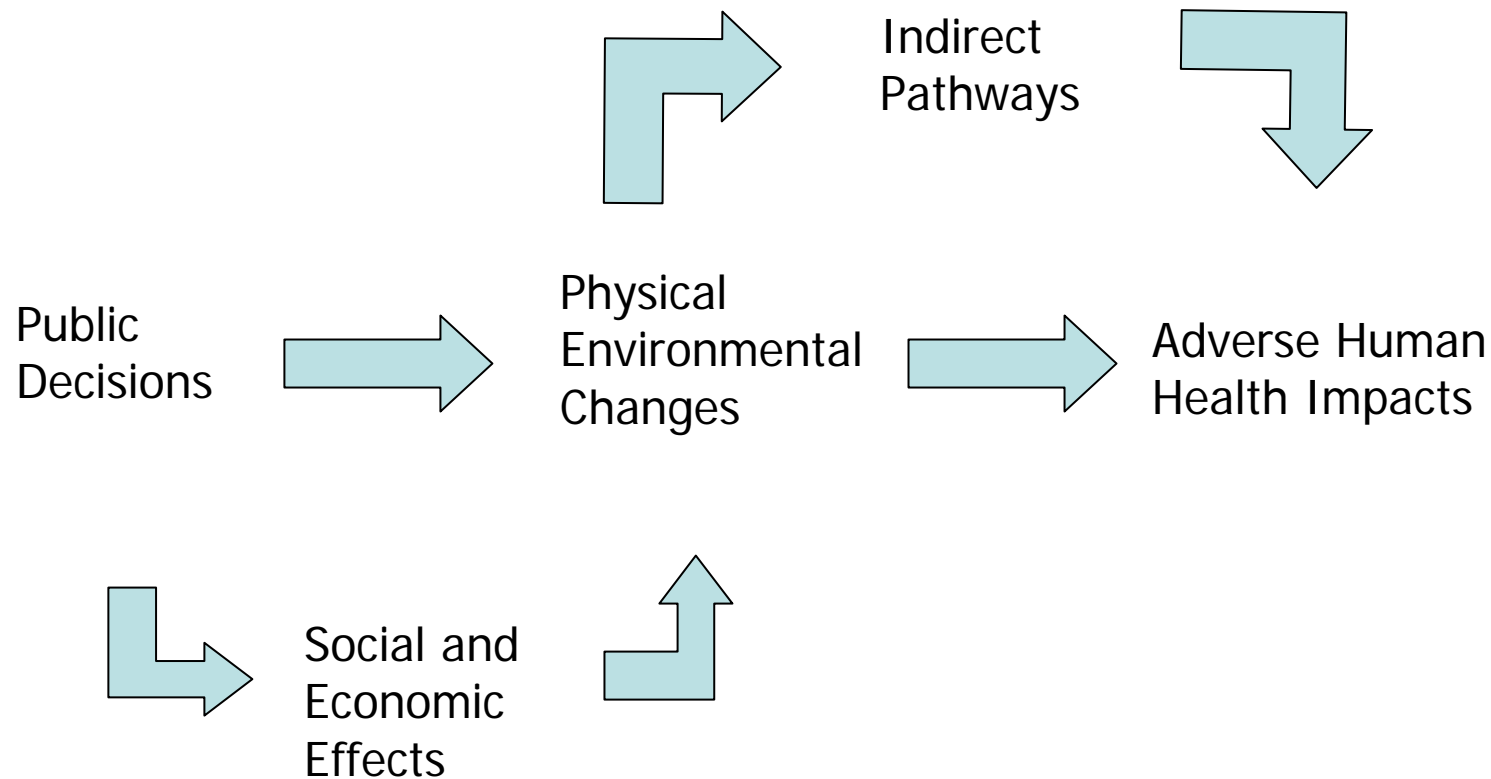


# Infill Development & Residential Displacement Trinity Plaza Case Study, San Francisco (2003)

- Coalition challenged City approval of proposal to demolish and redevelop 360 unit rent-controlled apartments to as new market-rate condominiums citing human impacts from stress, loss of family and friend support, and moving to poor quality housing
- A HIA conducted by the Health Department documented adverse health effects forcing City to require study or mitigations
- Developer negotiated with tenants to provide replacement housing at current rents



# Pathways *Requiring* Health Effects Analysis under Environmental Impact Assessment



# Roadway—Residential Air Quality Conflicts: Wood Street Project Case Study, West Oakland (2005)

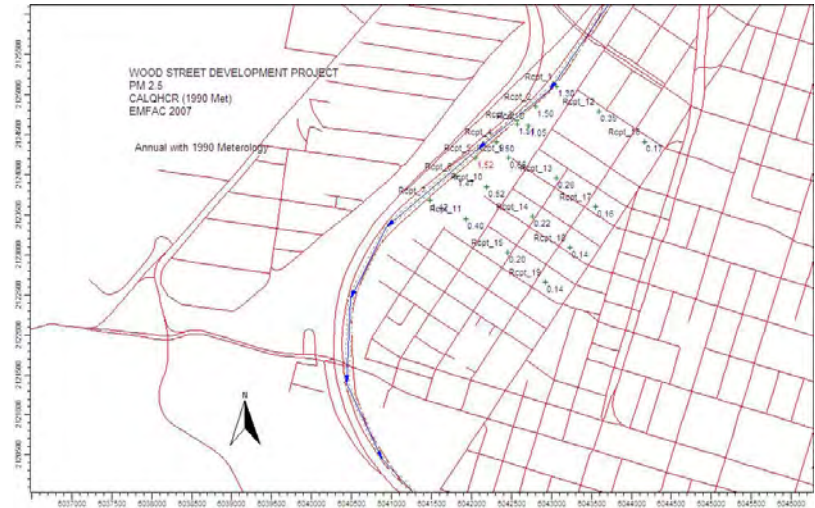
*Living within 500 feet of a busy roadway results in asthma symptoms and reduced lung growth in children!*





# Roadway—Residential Air Quality Conflicts: Wood Street Project Case Study, West Oakland (2005)

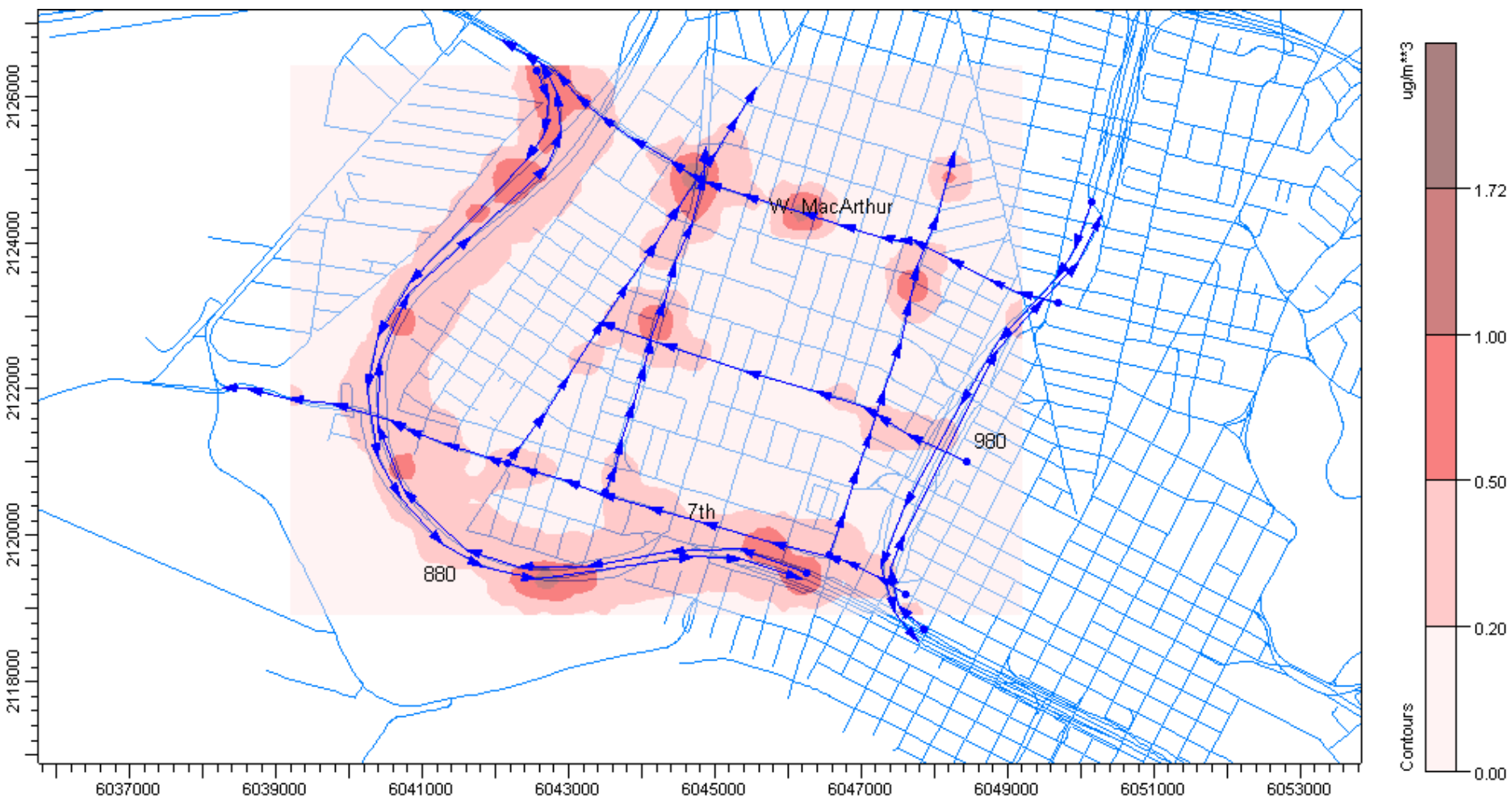
- I-880 Freeway rebuilt to avoid transecting West Oakland Neighborhood
- Mixed use residential project later proposed adjacent to freeway
- Community Coalition raised air quality health impacts in environmental review
- Exposure analysis pursued despite City inattention
- Coalition used analysis in selecting parcels for affordable housing



# **Roadway—Residential Air Quality Conflicts: Wood Street Project Case Study, West Oakland (2005)**

- Living near busy roadways is a significant health hazard
- Routine monitoring does not capture intra-urban exposure variation
- Air quality land use conflicts from roadways are not assessed or regulated by planning and building agencies
- Feasible mitigations are not employed to prevent exposure

# Modeled Spatial Extent of Vehicle PM<sub>2.5</sub> All Vehicle Sources—West Oakland, CA





# Reuse of Waterfront Industrial Land

## Oak to Ninth Case Study, West Oakland (2006)

- Oak to Ninth Avenue replaced plans for a regional public waterfront destination with a new residential neighborhood
- HIA examined access to schools, parks, and transit; environmental safety impacts from freeway vehicles; and opportunities for residential integration
- Findings had little standing or influence on decision-makers



FIGURE III-11: Oak to 9th District Bird's-Eye Illustrative Perspective



# Integrating Health into the CEQA Process

## Eastern Neighborhoods Rezoning, San Francisco (2007)

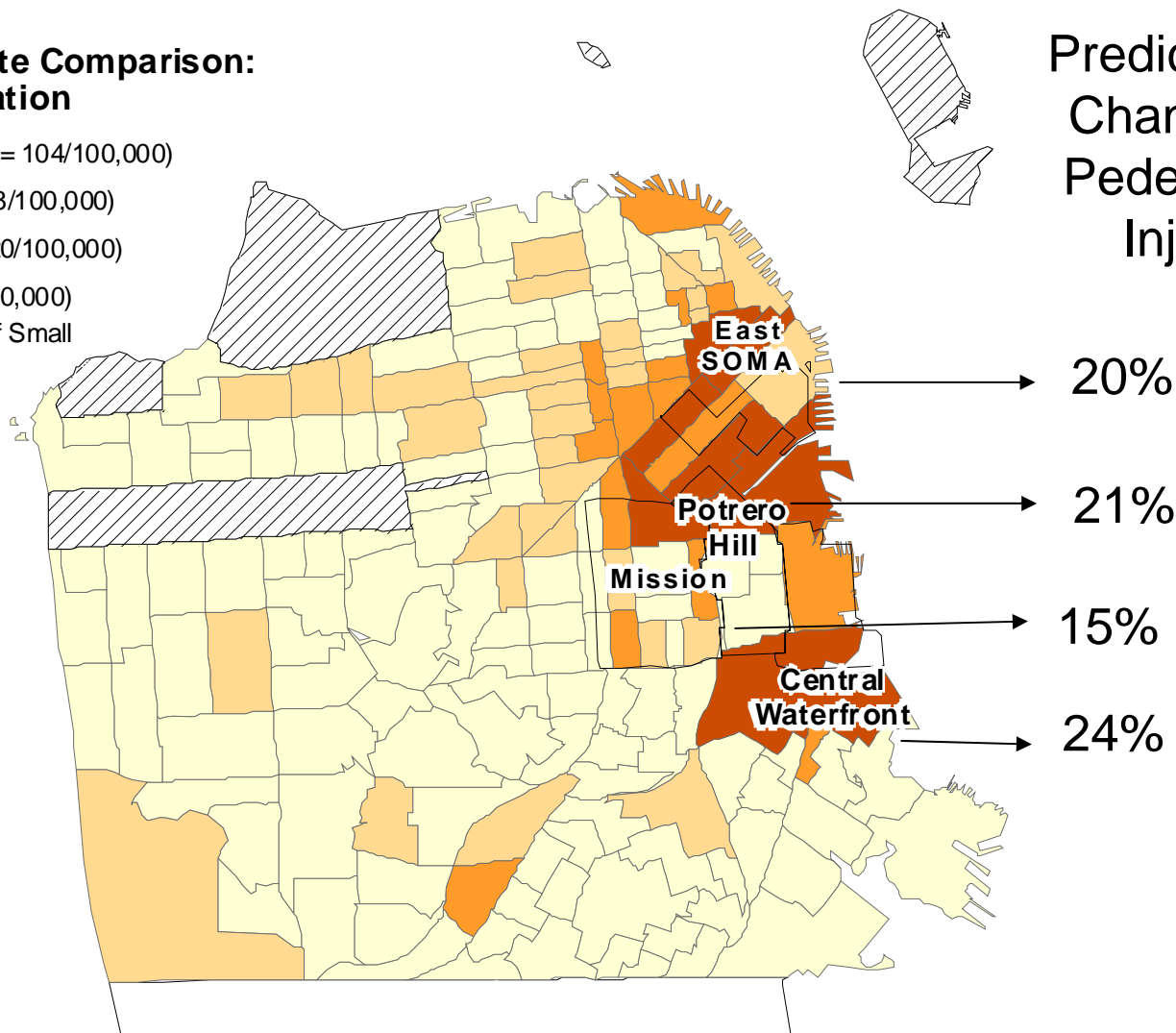
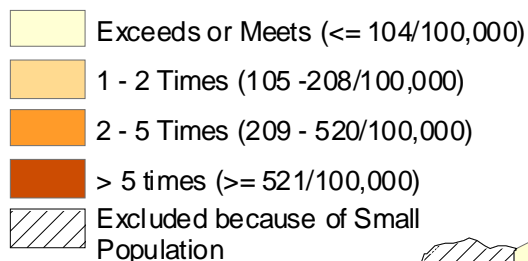
- City proposed rezoning of historically industrial lands;
- Potential environmental impacts on residents from noise, air pollutants, traffic hazards, and limited infrastructure
- SFDPH contributed analysis and mitigations to EIR as “cooperating agency”
- Draft EIR required new mitigations to protect respiratory health, reduce noise exposure
- EIR added “improvement measures” to reduce pedestrian injuries



# Pedestrian-Vehicle Collision Model

## Predicted Increases in Injury Collision Rates Resulting from Eastern Neighborhoods Rezoning

### Citywide Target Rate Comparison: 104/100,000 Population




### Predicted % Change in Pedestrian Injury

# The Healthy Development Measurement Tool

## A Systematic Tool For Planning (2007)

### Healthy Development Measurement Tool



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




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[Applying the Tool](#)  
[Preliminary Steps](#)  
[Step-by-Step Application](#)  
[Tool Application Examples](#)  
[Use the Tool](#)

[The Tool](#) » [Use the Tool](#)  

### Use the Tool

Start using the tool by clicking on one of the elements below, or [browse a Master List](#) of all the Tool components, including elements, objectives, and indicators. Visit [Tool Application Resources](#) for additional information to help conduct your application. Also, visit our [Demographics and Health Outcomes Data](#) to obtain baseline information on your community.

 [Environmental Stewardship](#)  
 [Sustainable and Safe Transportation](#)  
 [Public Safety](#)  
 [Public Infrastructure/Access to Goods and Services](#)  
 [Adequate and Healthy Housing](#)  
 [Healthy Economy](#)  
 [Community Participation](#)



# The Healthy Development Measurement Tool

## Key Components

- 1) Community Health Objectives
- 2) Measurable Indicators and Local Indicator data
- 3) Development Targets
- 4) Health—Development Nexus
- 5) Policy and Design Recommendations



# The Healthy Development Measurement Tool

## Two Primary Findings

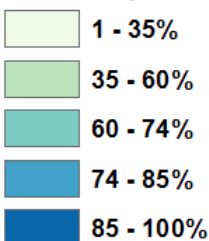
- 1) Does a place have healthy living and working conditions?
  - *HDMT indicator data supports assessment of baseline health conditions*
- 2) Does a plan or project advance health-related conditions in an area?
  - *HDMT development targets provide benchmarks for plans and projects*



# HDMT Community Health Indicator Data

## Proportion of Households with at Least One Vehicle Available

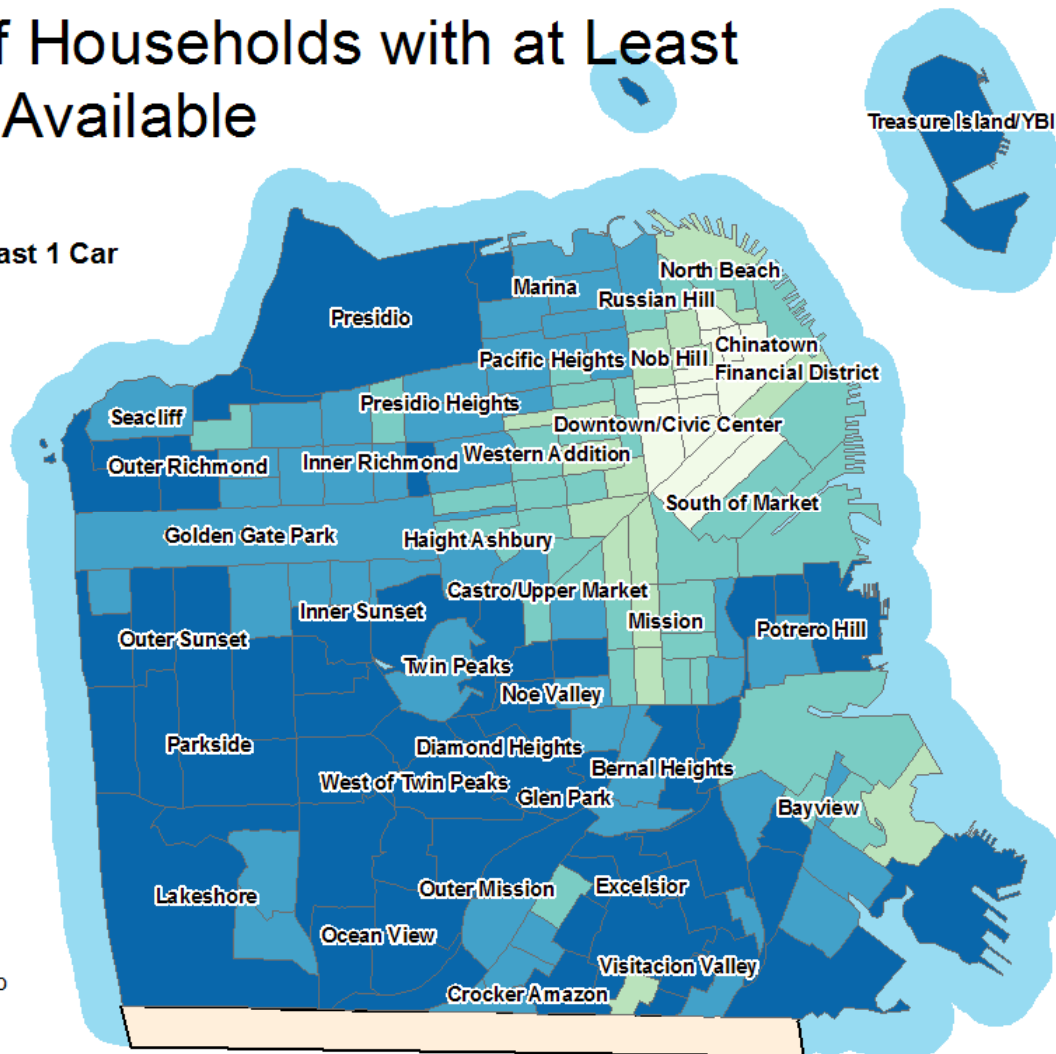
% Occupied HH w/at Least 1 Car



0 0.5 1 2 Miles

Source: 2000 Census

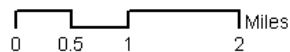
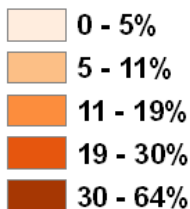
City and County of San Francisco  
Department of Public Health  
Environmental Health Section



# HDMT Community Health Indicator Data

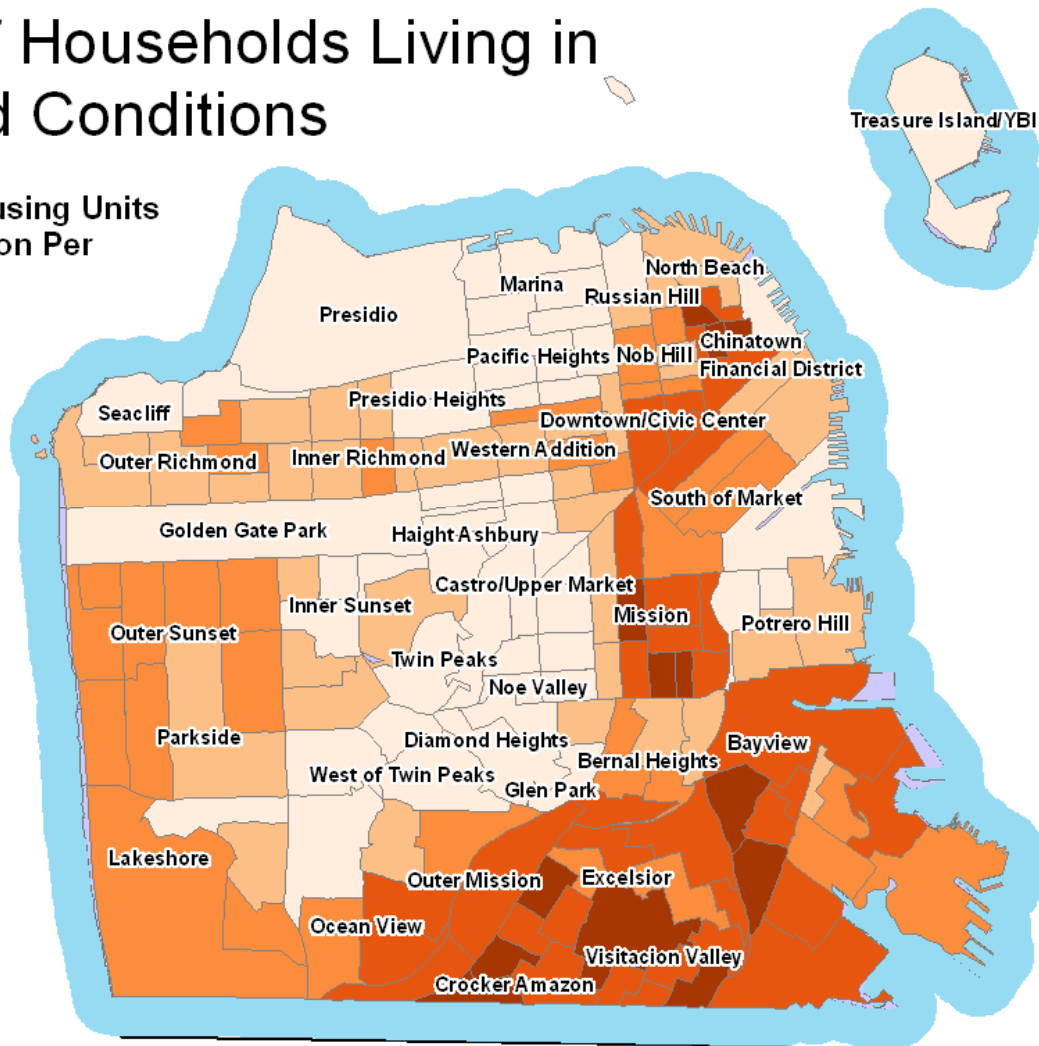
## Proportion of Households Living in Overcrowded Conditions

Percent Occupied Housing Units  
with More than 1 Person Per  
Room



Source: 2000 Census

City and County of San Francisco  
Department of Public Health  
Environmental Health Section





# HDMT Community Health Indicator Data

## Proportion of Population Within 1/2 Mile Access to a Full Service Supermarkets

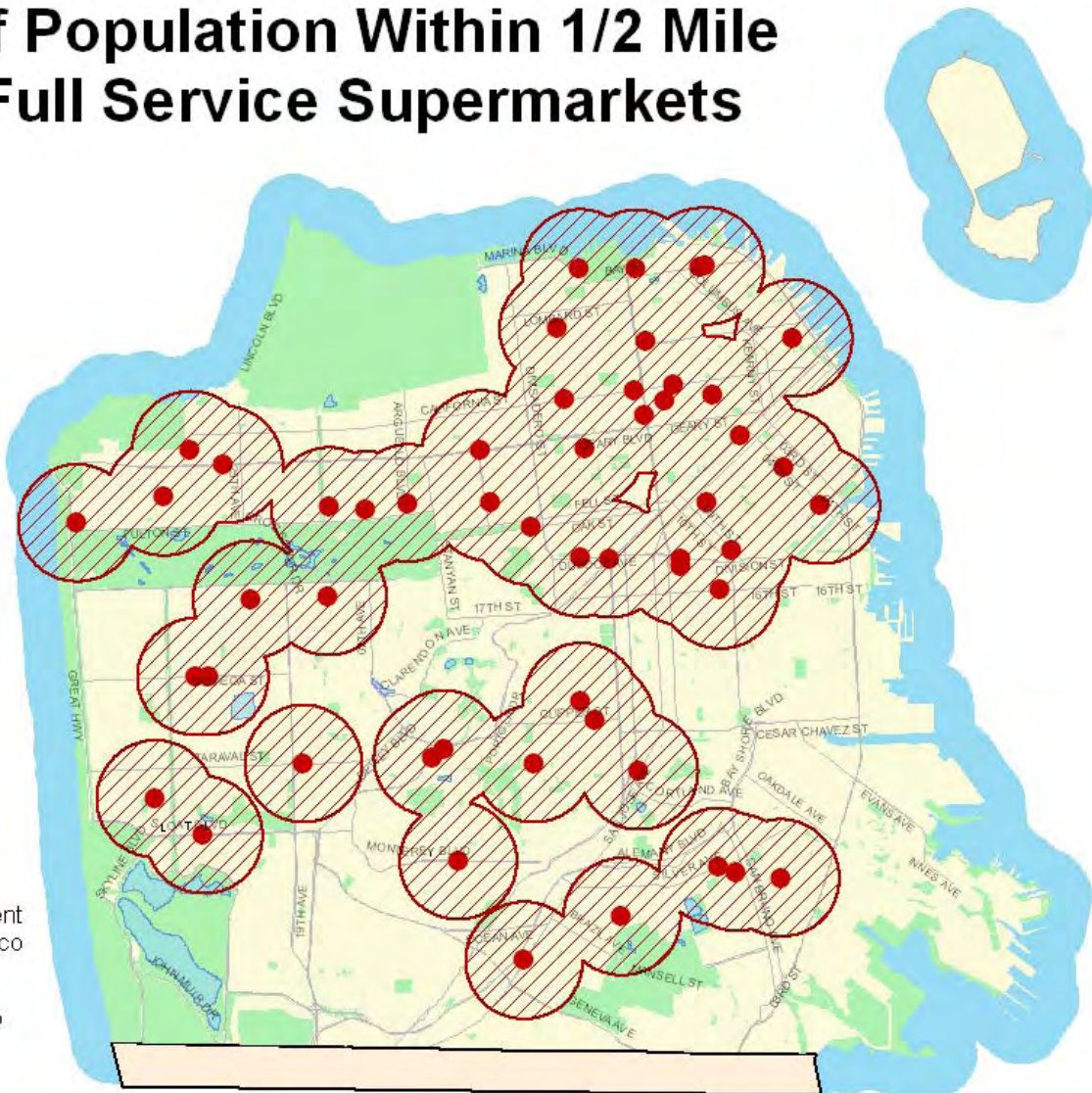
- Supermarkets
- ▨ 1/2 Mile Buffer



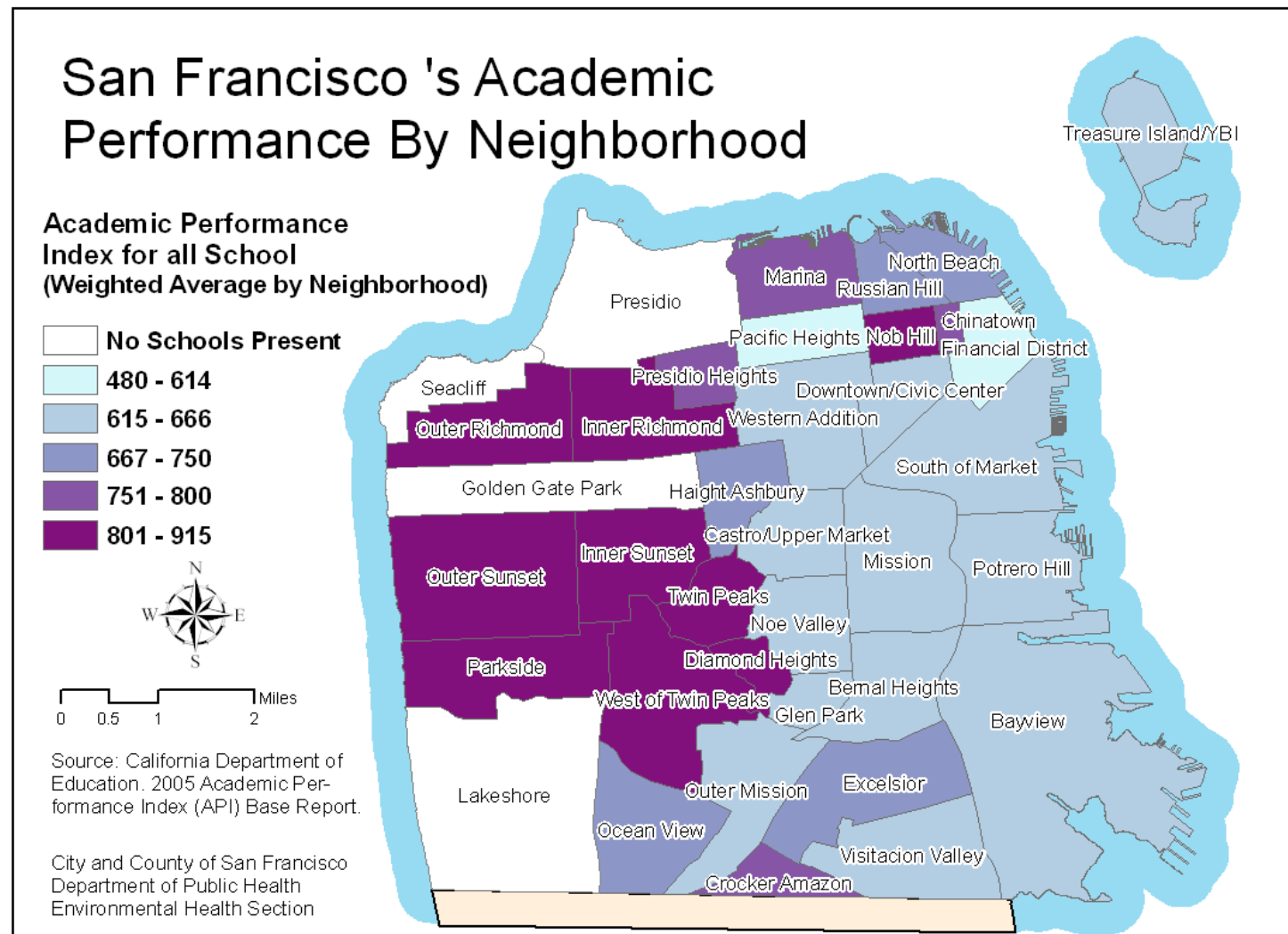
0 0.5 1 2 Miles

Source: San Francisco Department of Public Health and San Francisco Food Systems

City and County of San Francisco  
Department of Public Health  
Environmental Health Section

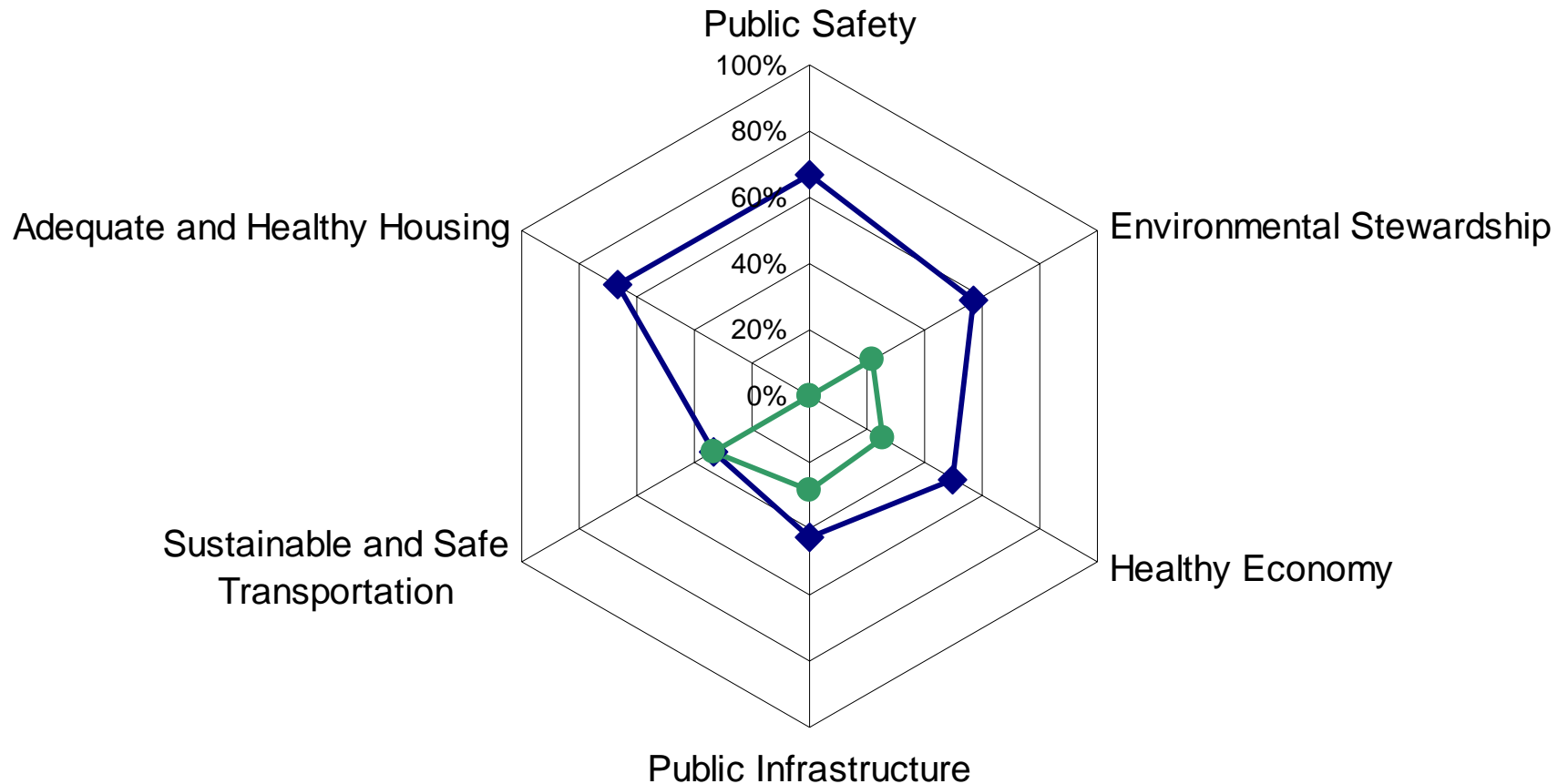


# HDMT Community Health Indicator Data



# HDMT: Sharing a Holistic Perspective

## HDMT Sustainability Spider Diagram



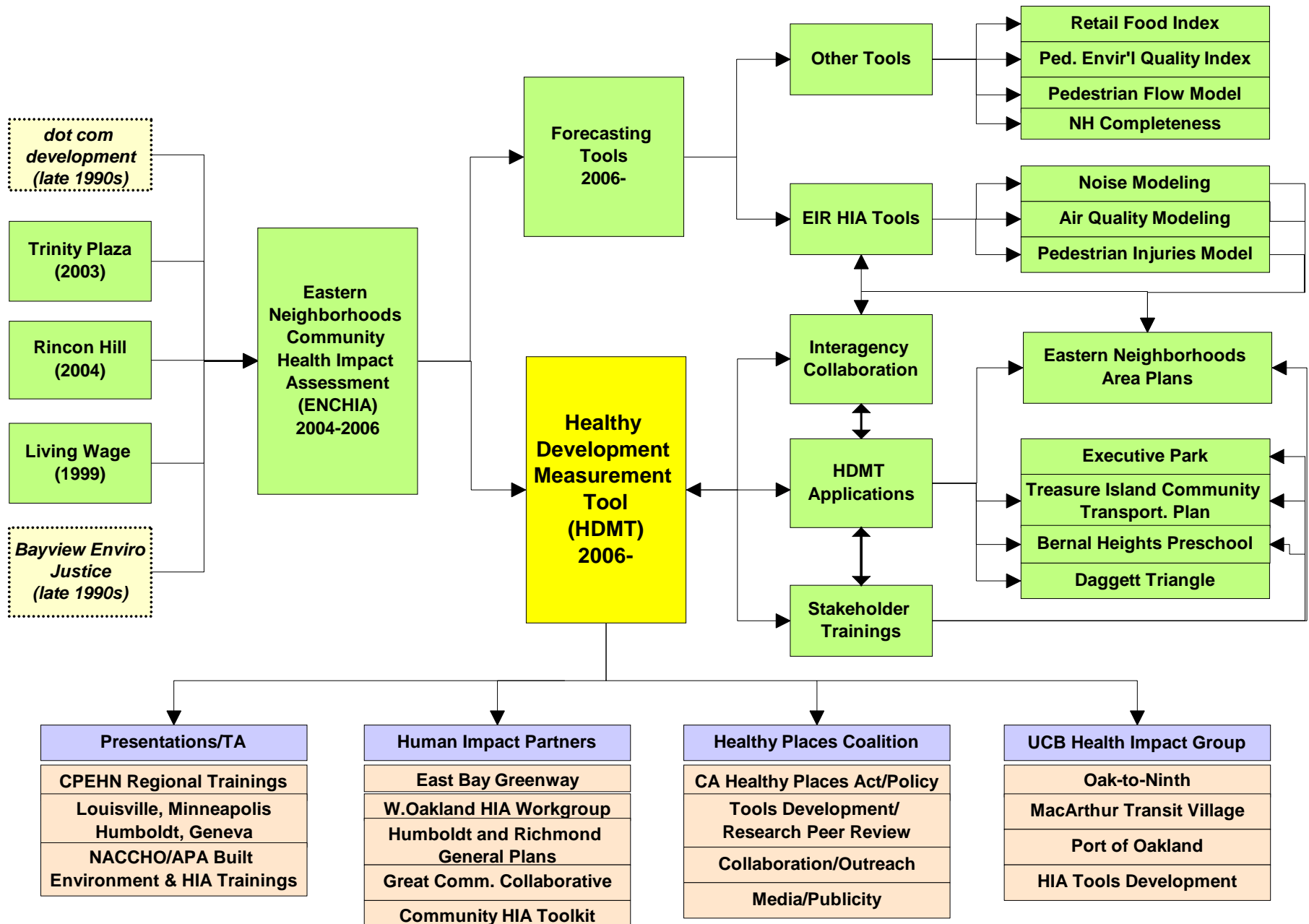
- ◆ Percent of Minimum Development Targets Achieved
- Percent of Benchmark or Maximum Development Targets Achieved

# Bay Area HIA

## Some Lessons Learned

- A critical public health analysis is missing in public policy making
- Existing (unrealized) institutions are available for protecting public health
- HIA resonates with community needs and concerns
- Health and environmental advocates are key constituencies
- A rigorous approach, practical solutions, and persistence can influence agencies and decision-makers
- Need to work in partnership with agencies, researchers, and private sector to understand and fill missing knowledge gaps
- Need to pick issues, plans, policies strategically both for significance and for developing awareness of HIA

# SFDPH Involvement in Health Impact Assessment (2003 - 2007)



# The California Healthy Places Act: Support for a Statewide HIA Practice



If adopted, the California Healthy Places Act would charge the California Department of Public Health to provide guidance, technical assistance, and grants to local public health agencies and community organizations that want to evaluate land-use planning decisions to ensure that they create the optimum conditions for community health.

# Health Impact Assessment

## Applications to Transportation Planning

- o New Transportation Facilities
- o Facility Expansions
- o Speed limits
- o Transportation Budgets
- o Operation Plans
- o Congestion Pricing
- o Parking Policy

# Web Resources for HIA Tools

SF Department of Public Health

- [www.sfdph.org/phes/](http://www.sfdph.org/phes/)

UC Berkeley HIA Course

- <http://ehs.sph.berkeley.edu/hia/>

Healthy Development Measurement Tool

- [www.TheHDMT.org](http://www.TheHDMT.org)

Human Impact Partners

- <http://www.humanimpact.org/>